

OIL ANALYSIS REPORT

Jan



NORMAL



Machine Id

DODGE 01

Component

Diesel Engine

AMSOIL ASM 0W20 (--- QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil

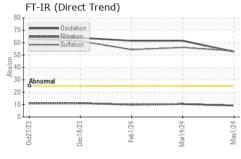
Fluid Condition

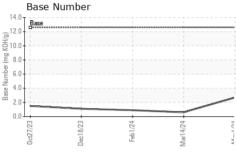
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

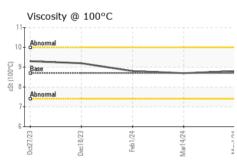
SAMPLE INFORMATION method limit/base current history1 history2			Oct2023	Dec2023	Feb 2024 Mar 2024	May2024	
Sample Date	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age mls Client Info 4500 54900 65000 Oil Age mis Client Info 0 0 50000 Oil Changed Client Info 0 0 50000 Sample Status NORMAL ABNORMAL ABNORMAL CONTAMINATION method Imitibase current history1 history2 Fuel WC Method >5 <1.0 <1.0 <1.0 <1.0 Water WC Method >0.2 NEG NEG NEG NEG Glycol WC Method imitibase current history1 history1 Broman MC Method >0.2 NEG NEG NEG WEAR METALS method imitibase current history1 history1 Broman ppm ASTM 05185m >10 5 Chromium ppm ASTM 05185m >20 <1 <1 <1 <1 <1 <1 <1 <1	Sample Number		Client Info		PCA0071104	PCA0071103	PCA0071102
Oil Age mls Client Info 0 0 5000 Oil Changed Sample Status Client Info Changed Chang	Sample Date		Client Info		01 May 2024	14 Mar 2024	01 Feb 2024
Oil Changed Sample Status Client Info Changed NORMAL Changed ABNORMAL Changed ABNORMAL ABNORMAL A	Machine Age	mls	Client Info		4500	54900	65000
CONTAMINATION method limit/base current history1 history2	Oil Age	mls	Client Info		0	0	5000
Fuel	Oil Changed		Client Info		Changed	Changed	Changed
Fuel	Sample Status				NORMAL	ABNORMAL	ABNORMAL
Water WC Method >0.2 NEG NEG NEG NEG Glycol WC Method Imilibase current history1 history2 WEAR METALS method limil/base current history1 history2 Iron ppm ASTM D5185m >100 8 10 5 Chromium ppm ASTM D5185m >20 -1 -1 -1 0 Nickel ppm ASTM D5185m >4 -1 -1 0 0 0 Silver ppm ASTM D5185m >4 -1 -1 -1 0 0 Aluminum ppm ASTM D5185m >40 -1 -1 0 </th <th>CONTAMINAT</th> <th>ION</th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	CONTAMINAT	ION	method	limit/base	current	history1	history2
WEAR METALS	Fuel		WC Method	>5	<1.0	<1.0	<1.0
WEAR METALS	Water		WC Method	>0.2	NEG	NEG	NEG
Iron	Glycol		WC Method		NEG	NEG	NEG
Chromium ppm ASTM D5185m >20 -1 -1 -1 Nickel ppm ASTM D5185m >4 <1 <1 0 Titanium ppm ASTM D5185m >3 0 0 0 Sliver ppm ASTM D5185m >20 3 3 3 Aluminum ppm ASTM D5185m >20 3 3 3 Lead ppm ASTM D5185m >40 <1 <1 0 Copper ppm ASTM D5185m >330 26 27 29 Tin ppm ASTM D5185m >15 <1 <1 <1 <1 <1 <0 Cadmium ppm ASTM D5185m <15 <1 <1 <1 <0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 215 215 215 215 215 <t< th=""><th>WEAR METAL</th><th>S</th><th>method</th><th>limit/base</th><th>current</th><th>history1</th><th>history2</th></t<>	WEAR METAL	S	method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>100	8	10	5
Titanium	Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Silver ppm ASTM D5185m >3 0 0 0 Aluminum ppm ASTM D5185m >20 3 3 3 Lead ppm ASTM D5185m >40 <1	Nickel	ppm	ASTM D5185m	>4	<1	<1	0
Aluminum ppm ASTM D5185m >20 3 3 3 Lead ppm ASTM D5185m >40 <1 <1 0 Copper ppm ASTM D5185m >330 26 27 29 Tin ppm ASTM D5185m >15 <1 <1 <1 0 Vanadium ppm ASTM D5185m >15 <1 <1 0 0 Cadmium ppm ASTM D5185m <1 <1 0 <t< th=""><th>Titanium</th><th>ppm</th><th>ASTM D5185m</th><th></th><th><1</th><th><1</th><th>0</th></t<>	Titanium	ppm	ASTM D5185m		<1	<1	0
Lead ppm ASTM D5185m >40 <1	Silver	ppm	ASTM D5185m	>3			
Copper ppm ASTM D5185m >330 26 27 29 Tin ppm ASTM D5185m >15 <1 <1 <1 Vanadium ppm ASTM D5185m <1 <1 0 Cadmium ppm ASTM D5185m <1 <1 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 215 215 251 Barium ppm ASTM D5185m 2 <1 0 Molybdenum ppm ASTM D5185m 192 196 207 Manganese ppm ASTM D5185m <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	Aluminum	ppm	ASTM D5185m	>20	3	3	3
Tin ppm ASTM D5185m >15 <1	Lead	ppm	ASTM D5185m	>40	<1	<1	0
Vanadium ppm ASTM D5185m <1	Copper	ppm	ASTM D5185m	>330	26	27	29
Cadmium ppm ASTM D5185m <1	Tin	ppm		>15	<1	<1	
ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 215 215 251 Barium ppm ASTM D5185m 2 <1 0 Molybdenum ppm ASTM D5185m 192 196 207 Manganese ppm ASTM D5185m <1 <1 <1 Magnesium ppm ASTM D5185m 744 796 859 Calcium ppm ASTM D5185m 696 679 693 Zinc ppm ASTM D5185m 742 759 785 Sulfur ppm ASTM D5185m 3035 3045 3058 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 6 10 9 Sodium ppm ASTM D5185m >20 2 3 4 Potassium ppm ASTM D5185m <th></th> <th>ppm</th> <th>ASTM D5185m</th> <th></th> <th><1</th> <th><1</th> <th>0</th>		ppm	ASTM D5185m		<1	<1	0
Boron	Cadmium	ppm	ASTM D5185m		<1	<1	0
Barium ppm ASTM D5185m 2 <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 192 196 207 Manganese ppm ASTM D5185m <1	Boron	ppm	ASTM D5185m		215	215	251
Manganese ppm ASTM D5185m <1	Barium	ppm	ASTM D5185m		2	<1	0
Magnesium ppm ASTM D5185m 744 796 859 Calcium ppm ASTM D5185m 1124 1152 1085 Phosphorus ppm ASTM D5185m 696 679 693 Zinc ppm ASTM D5185m 742 759 785 Sulfur ppm ASTM D5185m 3035 3045 3058 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m 25 6 10 9 Sodium ppm ASTM D5185m 22 3 4 Potassium ppm ASTM D5185m 20 2 3 0 INFRA-RED method limit/base current history1 history2 Soot % "ASTM D7624 >20 9.2 10.4 9.9 Sulfation Abs/.1mm "ASTM D7415 >30 53.3 56.1 54.4 FLUID DEGRADA	Molybdenum	ppm	ASTM D5185m		192	196	207
Calcium ppm ASTM D5185m 1124 1152 1085 Phosphorus ppm ASTM D5185m 696 679 693 Zinc ppm ASTM D5185m 742 759 785 Sulfur ppm ASTM D5185m 3035 3045 3058 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 6 10 9 Sodium ppm ASTM D5185m 2 3 4 Potassium ppm ASTM D5185m >20 2 3 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 0.1 0.1 Nitration Abs/.1mm *ASTM D7415 >30 53.3 56.1 54.4 FLUID DEGRADATION method limit/base current history1 history2	Manganese	ppm	ASTM D5185m		<1	<1	<1
Phosphorus ppm ASTM D5185m 696 679 693 Zinc ppm ASTM D5185m 742 759 785 Sulfur ppm ASTM D5185m 3035 3045 3058 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 6 10 9 Sodium ppm ASTM D5185m 2 3 4 Potassium ppm ASTM D5185m >20 2 3 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 9.2 10.4 9.9 Sulfation Abs/.1mm *ASTM D7415 >30 53.3 56.1 54.4 FLUID DEGRADATION method limit/base current history1	-	ppm	ASTM D5185m		744	796	859
Zinc ppm ASTM D5185m 742 759 785 Sulfur ppm ASTM D5185m 3035 3045 3058 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 6 10 9 Sodium ppm ASTM D5185m 2 3 4 Potassium ppm ASTM D5185m >20 2 3 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 9.2 10.4 9.9 Sulfation Abs/.1mm *ASTM D7415 >30 53.3 56.1 54.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 52.7	Calcium	ppm	ASTM D5185m		1124	1152	1085
Sulfur ppm ASTM D5185m 3035 3045 3058 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 6 10 9 Sodium ppm ASTM D5185m 2 3 4 Potassium ppm ASTM D5185m >20 2 3 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 9.2 10.4 9.9 Sulfation Abs/.1mm *ASTM D7415 >30 53.3 56.1 54.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 52.7 61.6 61.5	Phosphorus	ppm	ASTM D5185m		696	679	
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 6 10 9 Sodium ppm ASTM D5185m 2 3 4 Potassium ppm ASTM D5185m >20 2 3 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 9.2 10.4 9.9 Sulfation Abs/.1mm *ASTM D7415 >30 53.3 56.1 54.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 52.7 61.6 61.5	-	ppm	ASTM D5185m		742	759	785
Silicon ppm ASTM D5185m >25 6 10 9 Sodium ppm ASTM D5185m 2 3 4 Potassium ppm ASTM D5185m >20 2 3 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 9.2 10.4 9.9 Sulfation Abs/.1mm *ASTM D7415 >30 53.3 56.1 54.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 52.7 61.6 61.5		• •	ASTM D5185m		3035	3045	3058
Sodium ppm ASTM D5185m 2 3 4 Potassium ppm ASTM D5185m >20 2 3 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 9.2 10.4 9.9 Sulfation Abs/.1mm *ASTM D7415 >30 53.3 56.1 54.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 52.7 61.6 61.5	CONTAMINAN	TS	method	limit/base	current		history2
Potassium ppm ASTM D5185m >20 2 3 0 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 9.2 10.4 9.9 Sulfation Abs/.1mm *ASTM D7415 >30 53.3 56.1 54.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 52.7 61.6 61.5		• •		>25			
INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 9.2 10.4 9.9 Sulfation Abs/.1mm *ASTM D7415 >30 53.3 56.1 54.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 52.7 61.6 61.5		ppm					
Soot % % *ASTM D7844 >3 0.1 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 9.2 10.4 9.9 Sulfation Abs/.1mm *ASTM D7415 >30 53.3 56.1 54.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 52.7 61.6 61.5	Potassium	ppm	ASTM D5185m	>20	2	3	0
Nitration Abs/cm *ASTM D7624 >20 9.2 10.4 9.9 Sulfation Abs/.1mm *ASTM D7415 >30 53.3 56.1 54.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 52.7 61.6 61.5	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 53.3 56.1 54.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 52.7 61.6 61.5							
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 52.7 61.6 61.5	Nitration	Abs/cm	*ASTM D7624	>20	9.2	10.4	
Oxidation Abs/.1mm *ASTM D7414 >25 52.7 61.6 61.5	Sulfation	Abs/.1mm	*ASTM D7415	>30	53.3	56.1	54.4
	FLUID DEGRAD	ATION	method	limit/base	current	history1	history2
Base Number (BN) mg KOH/g ASTM D2896 12.6 2.7 ▲ 0.6 ▲ 0.9	Oxidation	Abs/.1mm	*ASTM D7414	>25	52.7	61.6	61.5
	Base Number (BN)	mg KOH/g	ASTM D2896	12.6	2.7	△ 0.6	△ 0.9



OIL ANALYSIS REPORT



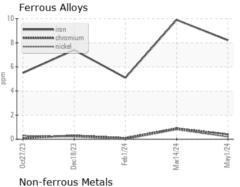


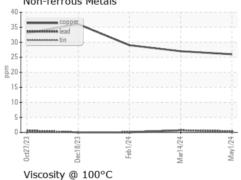


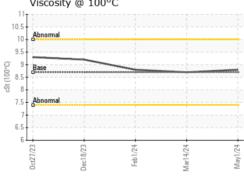
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

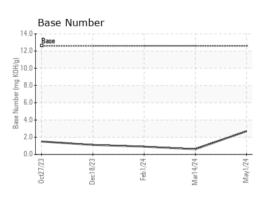
FLUID PROPI	ERHES	method				history2
Visc @ 100°C	cSt	ASTM D445	8.7	8.8	8.7	8.8

GRAPHS













Laboratory Sample No.

: PCA0071104 Lab Number : 06176535 Unique Number : 11022588 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received **Tested**

: 13 May 2024 Diagnosed : 15 May 2024 - Sean Felton

: 10 May 2024

Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

AMERICAN NATURAL SUPPLY

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